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ABSTRACT

In order to provide guidance to schools and school systems which are developing and improving their media programs, the Maryland State Department of Education has compiled a set of criteria based on the standards of the American Library Association and the National Education Association. The School Media Program in the Maryland State Department of Education, which supports media activities throughout the state is detailed. The services, staff, collections of material and equipment, and facilities recommended for media programs at the school system level and at the level of the individual school are fully described. A chart lists the space needed by a school media center for each of its functions. (JY)

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Criteria for Modern SCHOOL MEDIA PROGRAMS

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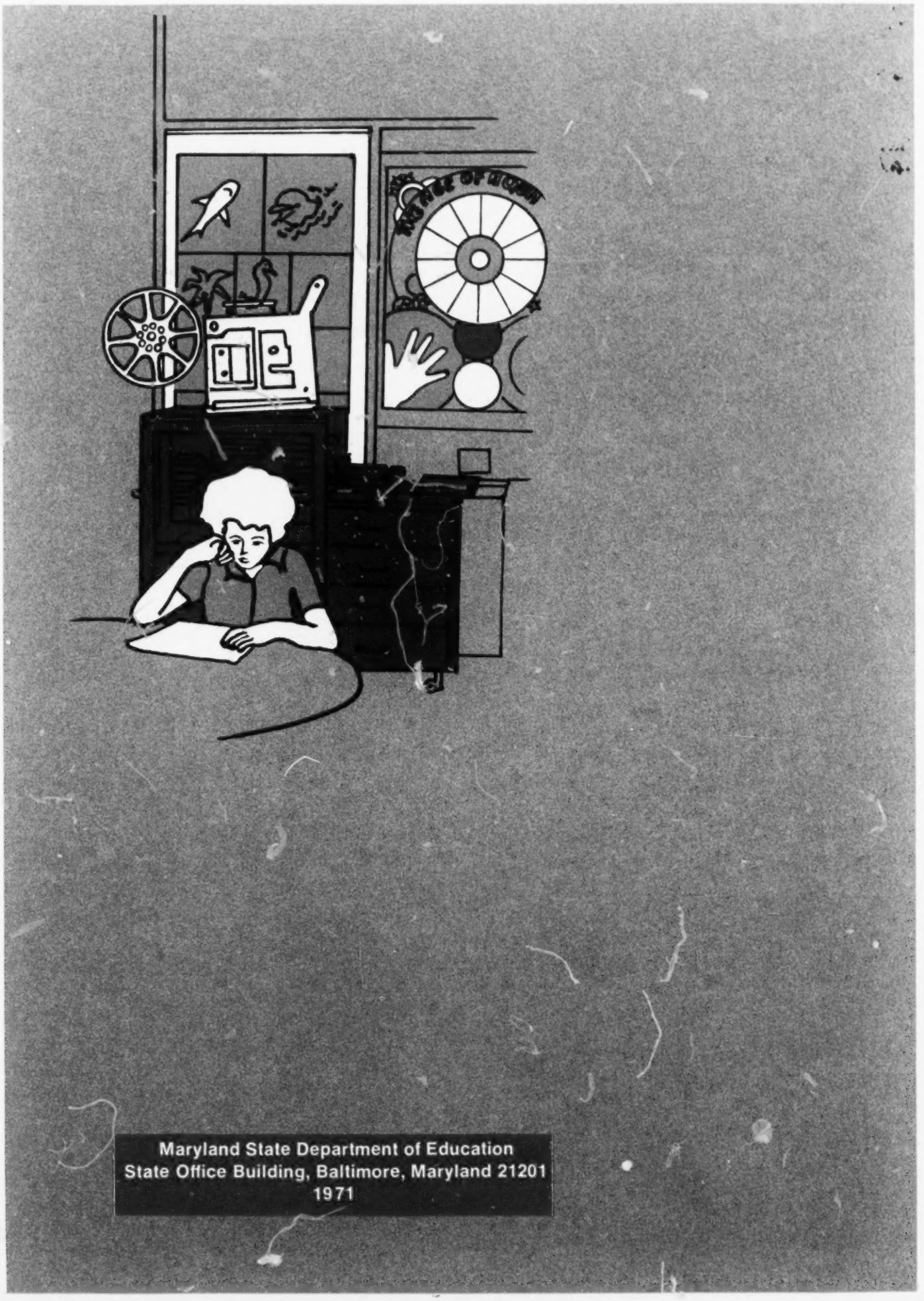

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FOREWORD

Educational research recognizes the uniqueness of the individual learner, the complexity of the learning process, and an advanced technology which has extended traditional methods and materials to meet the needs and concerns of children growing up in the world of today. School media programs employ a multi-sensory approach to learning to reach a broad range of students with varying backgrounds, abilities, needs, and interests. Complementing individualized learning, media programs become a fundamental part of the total educational process as they support, extend, and enrich continually evolving curricula.

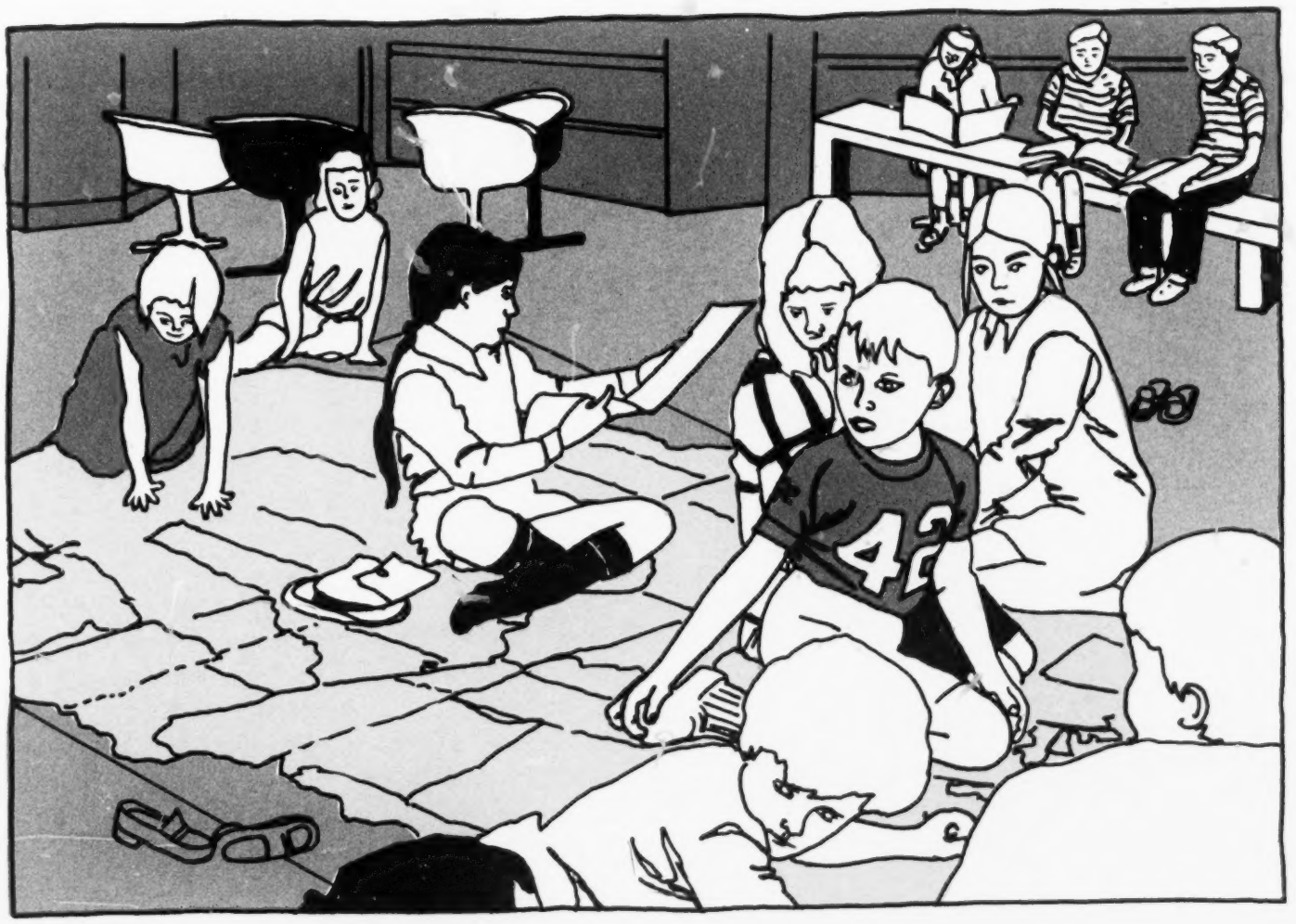
The school media program is that body of activities which involves the use of all types of communication media by students and instructional staff to accomplish the objectives of the schools. To reach mutually established learning objectives, print and audiovisual resources and services are combined in a unified program which promotes their use.

Leadership of a school media program is assumed by one member of the professional staff who is competent in all aspects of educational media. To achieve maximum effectiveness, all other staff persons specifically assigned to the media center must provide to the program the necessary professional and paraprofessional services. While the operation of the program will differ at State, system, and school levels, the basic philosophy of the educational use of media remains the same.

The purpose of this *Bulletin* is to provide guidance to schools and school systems which are developing and improving their media programs and to affirm our confidence in the efficacy of a unified program at State, system, and school levels

James A. Sensenbaugh

JAMES A. SENSENBAUGH
State Superintendent of Schools



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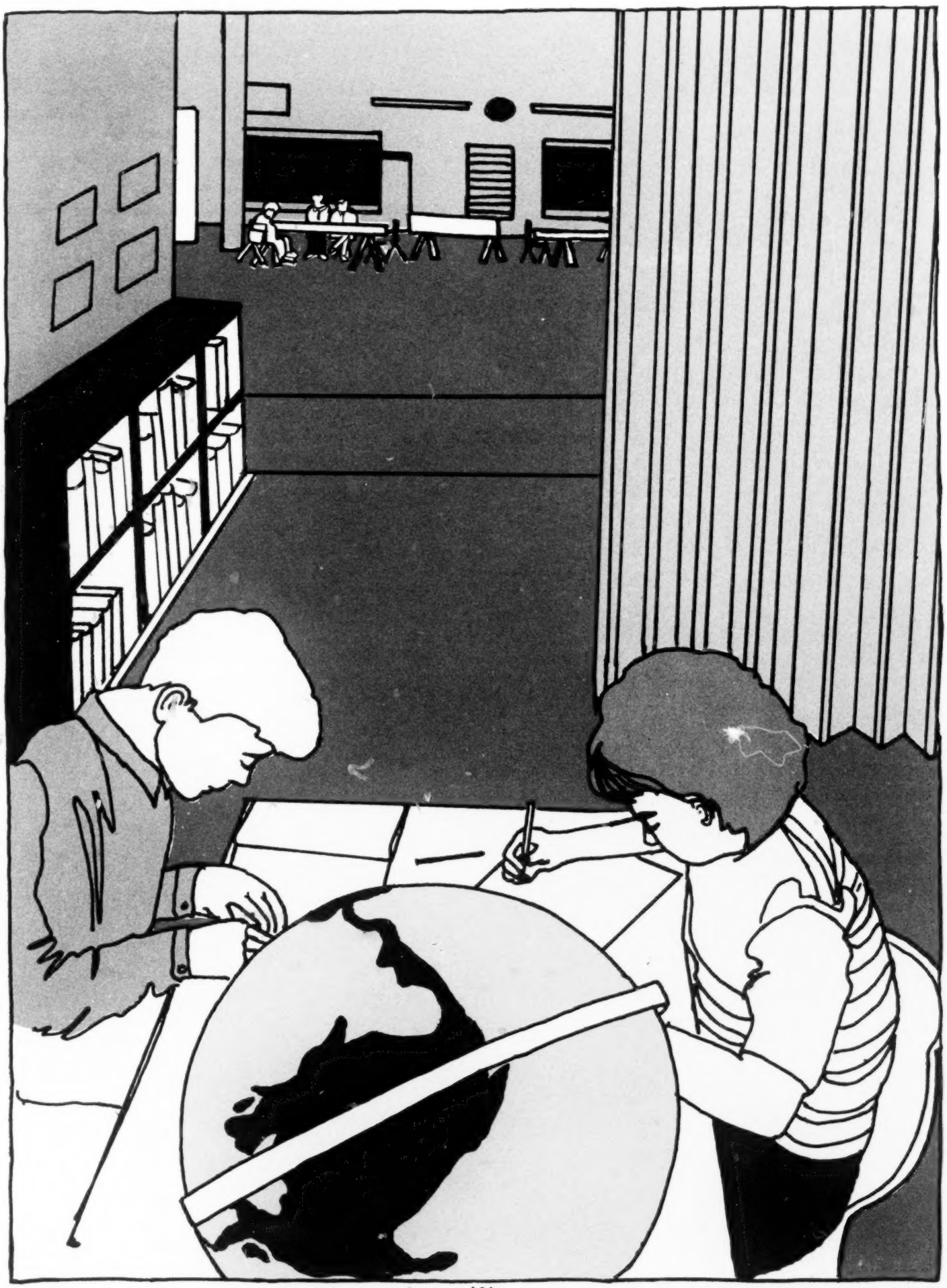
What are these CRITERIA?

Since the Maryland State Department of Education sets few quantitative standards which must be met arbitrarily, it is logical that *Criteria for Modern School Media Programs* should be considered as "projective standards"; i.e., "standards which provide incentives and guidelines for schools which are incorporating new educational approaches in their curricular programs. They are service oriented . . . they reach out into the ideal with the certainty that in time they will be the reality of the present."[1] But even projective standards for school media programs have no validity when considered in isolation. The quality of any media program must ultimately be judged in relation to each school's educational philosophy and the objectives of its instructional program.

Furthermore, there is no hard core research available to prove that any given number of items of materials or equipment, of staff members, or any amount of space will insure a specific result. It is highly unlikely that the value of a media program will ever become this predictable. Experience has shown, however, that certain quantities of tangible materials, machines, money, space, and people have a greater likelihood of producing desirable results in relation to specific educational goals and objectives. Experience has also shown that, without certain minimums of these tangibles, very limited educational opportunities are provided.

With these considerations in mind, the committee has made an attempt to define the responsibilities of the State Department of Education and the local education agencies for school media programs both at the system and local school levels, but without drawing blueprints which guarantee results. These *Criteria*, which represent the best of current thinking, are presented as professional guidelines and not as a whip. And every effort has been made to avoid the trap of equating mere size with quality. Each school system must determine for itself how services, materials, and staff can best be adapted to meet its own educational objectives and priorities.

1 JAMES O. WALLACE, *The Practical Meaning of Library Standards* (Mimeographed paper presented at the Ohio State University's Libraries' Institute in Training in Librarianship, 1969.)



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# of Terms used in this bulletin

INITIAL COLLECTION:

The minimum quantity of relevant materials and equipment considered essential in any school. The term "initial" is used because this collection serves as the basis for needed expansion.

ITEM:

An item is a book, either hard cover or paperback, a film, filmstrip, tape, record, globe, slide, kit, completed transparency (not a master), and a periodical subscription.

MEDIA[1]**:**

Printed and audiovisual forms of communication and their accompanying technology.

MEDIA AIDE[1]**:**

A media staff member with clerical or secretarial competencies.

MEDIA ASSOCIATE:

A professional person with introductory knowledge, understanding of and competency in media services, with particular emphasis on the operation of a unified media program.

MEDIA CENTER[1]**:**

A learning center in a school where a full range of print and audiovisual media, necessary equipment, and services from media specialists are accessible to students and teachers.

MEDIA GENERALIST:

A professional person with knowledge, understanding of and conpetency in the broad range of media services, with particular emphasis on those competencies related to the development and administration of a unified media program.

MEDIA SPECIALIST:

A professional person with a high degree of understanding of and competency in a specific area of the media program.

MEDIA STAFF[1]**:**

The personnel who carry on the activities of a media center and its program.

MEDIA TECHNICIAN[1]**:**

A media staff member who has training below the media specialist level, but who has special competencies in one or more of the following fields: graphics production and display, information and materials processing, photographic production, and equipment operation and simple maintenance.

SYSTEM MEDIA CENTER[1]**:**

A center at the school system level to provide supporting and supplemental services to school media centers in individual schools of the system.

TEACHING STATION[1]**:**

Any part of the school (usually but not always a classroom) where formal instruction takes place. Media centers are not included within this definition although it is recognized that instruction is part of the media program.

UNIFIED MEDIA PROGRAM[1]**:**

A program in which instructional and other services related to both print and audiovisual media are administered in a single unified program under one director.

1 American Library Association and National Education Association. *Standards for School Media Programs.* ALA and NEA, 1969. p. xv and xvi.

INTRODUCTION
The Evolution of Media Centers

When Vulcan, the god of fireworks and metal, hit his father, Jupiter, a resounding blow on the head, Minerva sprang forth full-grown to become the goddess of wisdom and another myth. It is equally mythical that goals and objectives in education and programs designed to achieve them have sprung full-fledged from any one head, committee, or task force. The changes in educational goals and objectives have been evolutionary rather than revolutionary and, usually, have resulted from gradual societal changes. It has taken nearly four hundred years for today's goals to evolve. The early goal of American education was to teach children to read in order that they might understand the Scriptures. Out of the Industrial Revolution grew another goal — to prepare people for jobs. The current Technological Revolution, coupled with recent research findings in learning theories and motivation, are responsible for today's emphasis upon self-discovery, inquiry, and self-direction.

Man's efforts to devise means of communication other than the spoken word have covered a long time span. The transition from cuneiforms to cassettes took thousands of years; the evolution from Gutenberg and books in chains to paperbacks was accomplished in less than five centuries; films created by elementary school pupils have developed from the "flicks" of the early 1900's; the evolution of television from its primitive state in 1940 to live pictures of man walking on the moon has been uncannily rapid. A program for providing tools of communication and concomitant services for learning, teaching, and as means of expressing creativity is not new. Early American school children were provided *The New England Primer,* Webster's *Blue-Back Speller,* a slate, and a teacher. Currently, they are being provided with what might be considered a bewildering variety of human resources, of equipment, and of materials for information, inspiration, entertainment, and self-expression.

Wise use of these various resources, however, calls for the development in each school of a unified media program, i.e. "a program in which instructional and other services related to both print and audiovisual media are administered in a single unified program under one director."[1] However, the purpose of unification is to provide diversity both in personnel and materials and to give the user the freedom to choose those particular services and materials which meet his learning needs.

This freedom to choose must usually be accompanied by a reorientation of values. Among the tools of communication, man traditionally has assigned the highest status to the printed word and has even established a hierarchy in print, with the hard-bound book at the top of the list. The right to succeed in school and the high status that goes with success have long been accorded to the student who can read well the printed word, even though he can read nothing else. Altering this stereotyped idea of the learning process depends, to a great extent, on the media staff, on how successfully the audiovisual specialist and the librarian can change the public images they have created of themselves, and the connotations of their respective roles.

The audiovisual specialist, for example, is too often thought of as a machine repairman and operator who can, but does not, read; he is viewed as having no interest in content and as afraid to let students operate his machines, lest they be damaged. The audiovisual room or office is seen as a hole-in-the-wall space, cluttered with machines waiting to be repaired.

The public image of the librarian and the library is no more engaging. The librarian is a quiet mouse who "loves to read," but is seldom seen doing so. She is a meticulous cataloger of books, timid about operating the simplest projector even though she drives her car to and from school each day. She hopes nobody will speak at all; but if he must, he should whisper. The library is a sacred hall, with the *Silence* signs strictly enforced. Its rules are made for the preservation of materials rather than convenience of the users.

Fulfillment of the new potential emerging in our educational process depends on the elimination of these physical barriers, hierarchies, stereotypes, and connotations surrounding instructional media. In an effort to eliminate the physical barrier, a unified program which brings together all types of materials in a democratic mingling is recommended. The media center which provides an environment conducive to self-discovery, inquiry, and self-direction is recommended. Its rules should be made to facilitate rather than

restrict use and it should assign no status value to material in any format. It is more readily seen as a bee-hive of activity than as a place of worship.

Coordinating this center should be a media generalist who is able to work with people, is action-oriented, is eager to learn and to teach, and is more interested in service than in organization. He is knowledgeable about materials in any available format and should respect and appreciate individual differences; he is an aggressive participant in the design and implementation in educational programs which enhance learning and teaching opportunities.

1 *Standards for School Media Programs.* Chicago, American Library Association. Washington, National Education Association, 1969. Page xvi.

THE MEDIA PROGRAM

by Vernon E. Anderson[1]

The media program described in this *Bulletin* is a vital part of the instructional program of any modern school. Its objective is to place the learner in communication with other people, places, cultures, and times. It provides resources which communicate information, ideas, and feelings, and which recognize no limits to learning. Its linking of human, scientific, and technical resources enables the teacher to interact with the learner in a manner not possible in mass education.

The Media Program is a Cooperative Venture

A media program does not operate in a vacuum apart from the total education program, but as a cooperative venture in learning and teaching. It is the intermingling of curriculum with materials in any format in which ideas are presented. The methods of presentation of ideas involve the active participation of students, teachers, and media staff and invite independent study by the student so that in the final analysis emphasis is on learning rather than on teaching. As the program itself is a coordinated effort, the management of the program must also be a cooperative venture. Teachers and media staff are partners in the design, development, and implementation of the program. They jointly select the media which are utilized in the program: books, tapes, slides, computer software, and any other tools which may enhance learning and teaching. The program provides for a total team approach whereby teachers and media staff coordinate the utilization of resources. Whether activities take place in the media center, lab, or classroom, the resources of the center are available and the expertise of teachers and media staff may be called upon by the learner.

The Media Program is Unified

Cooperative programs must have unity of purpose and management. The purpose of the program is to bring together the diversity of materials, technology, and human resources which contribute effectively to learning and teaching. Ultimate responsibility for knowledge of the rapid development of new methods, materials, and equipment in the field of educational technology, for developing the program, for organizing the materials, and for administering the program should be assigned to one person who has the broad, comprehensive education described in this *Bulletin*.

The Media Program Fosters Self-Directed Learning

Teachers and students are learners. The media program stresses individualization, on-going and independent study. It provides opportunities for creative self-expression. The learner is encouraged to research, view, listen, construct, and create in order to accomplish his goal. The basis for this unfettered approach is based on the fact that people do not respond equally to the same form of communication.

The Media Program Links Community Resources to Needs

Media programs look toward the community as a valuable partner in teaching/learning activities. Students within a closed school environment depend on simulated situations when learning, but the media program allows them to benefit from being subjected to the "real thing." Though experimental in nature, "schools without walls" which go out into the community to locate the best possible learning sites point the way for a further widening of the scope of media programs.

The Media Program Operates from a Media Center

Although the media program functions in classrooms, labs, homes, and the community, the base from which it operates is the media center. Students use the media center on an individual basis: they listen to tapes and records, make their transparencies and other visuals, and view slides or films related to their classroom work. The media center is also used by groups: students meet to discuss joint projects, to build models and displays, and to use recording equipment. Teachers also work and plan there, individually and as teams. All of the resources for learning are readily available to the learner. The concept behind the media center invites use of materials according to individual taste and need.

The media center, like the media program itself, is ever changing to meet new demands and needs in the communication of facts, ideas, and concepts. For the learner, it is where the action begins.

1 Dr. Anderson is Professor of Education at the University of Maryland.

THE SCHOOL MEDIA PROGRAM in the Maryland State Department of Education

The Maryland State Department of Education believes in and supports the concept of unified media services at the local, system, and State levels and recognizes its obligation to provide leadership in the development of such services.

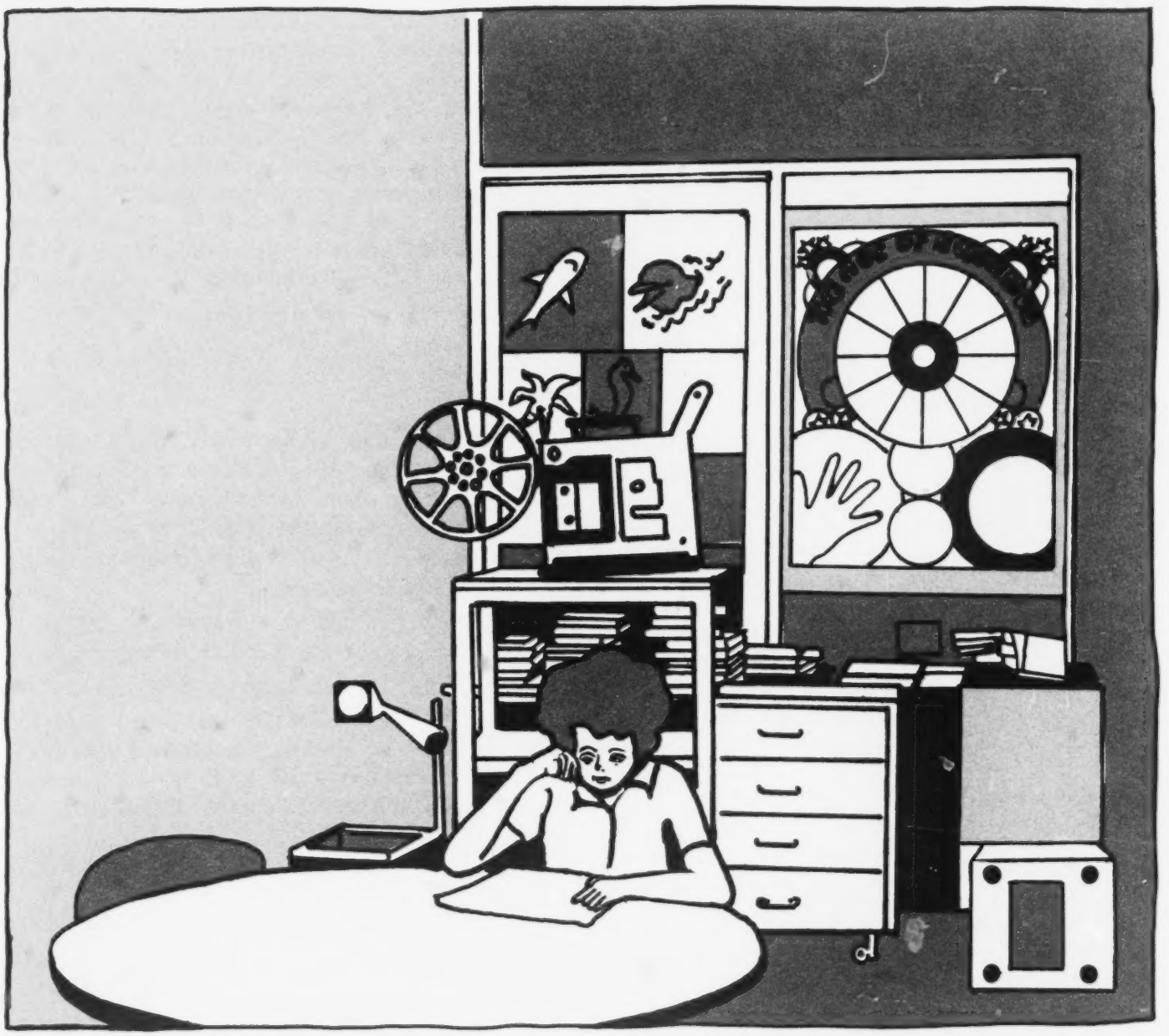
Within the State Department of Education, the responsibility for the development of all media programs, for both the public and the schools, except Instructional Television, rests with its Division of Library Development and Services. The school media staff of this Division includes people educated and experienced in Educational Technology and Library Science. The Division of Library Development and Services and Instructional Television are components of the Bureau of Instructional Services, which also includes the Divisions of Instruction; Vocational Education; and Compensatory, Urban, and Supplementary Programs.

The Division of Library Development and Services and its school media unit, working in close cooperation with the Bureau of Instructional Services, the other divisions of the Department, and local school systems, have the following responsibilities:

1. To formulate long range plans for the development of school media programs, including cooperative planning for regional and State services
2. To provide advisory and consultative services to local school systems, particularly in the areas of new media services and technology and school media facilities
3. To develop standards and guidelines for the improvement of media programs
4. To provide programs of inservice education on the concepts and utilization of media to administrators, supervisors, media personnel, and teachers
5. To develop proposals for needed research in media services
6. To collect, analyze, and disseminate information on the scope and quality of media programs in the State
7. To assist in the determination of qualifications for certification of media personnel
8. To administer federal funds available for media programs
9. To provide for the effective coordination of media services with the critical educational concerns of the State and local school systems.
10. To develop coordinated plans and policies with other personnel and agencies that will strengthen library media services for all citizens
11. To act as a clearinghouse for information on library services in the State and to foster interlibrary loan and cooperative arrangements with school, public, academic, or other libraries

The State Department of Education is considering strengthening its leadership role and broadening its services even further by initiating research projects to determine actual staff and student needs and by formulating objective criteria for evaluating programs.

It is also exploring the possibilities of linking media centers in the headquarters of school systems with the Enoch Pratt Free Library Interlibrary Loan Teletype System and public library regional resource centers. It may be feasible to establish a State network linking strong, existing collections of professional media materials in order to provide educators with access to any needed curriculum or other professional materials.



THE MEDIA PROGRAM at the School System Level

SERVICES

The local school system has the dual responsibility of providing for media services both at the system level and in its several schools. The organization of Maryland's public schools, with only 24 school districts, offers unique opportunities for developing a base of operations at the system level which can provide services common to all schools and promote profitable cooperative ventures among school systems. System-wide services which are cooperatively planned and staffed can insure a wise expenditure of funds and effective use of manpower while still honoring the inherent right of each school to develop its own individuality.

Planning for and evaluation of media programs and services are key responsibilities of the school system. Realistic planning calls for careful analysis of the goals and objectives of the instructional programs, of staffing patterns, and of the availability and utilization of technology as well as acute awareness of the possibility of changes in educational philosophy or of technical developments which may affect instructional programs. Continuous evaluation is essential in order to measure progress and recycle programs. Evaluation of media programs should be in terms of their effectiveness in meeting the identified needs of the users of the services; i.e. of the administrative and instructional staffs and of the students. The school system also has the responsibility to 1) prepare annual budgets; 2) administer the federal funds available for the program; 3) make reports to the local board of education, State Department of Education, and the United States Office of Education; and 4) to interpret the program to the local Board of Education, the staff, and the public.

It is unrealistic for every school system to attempt to provide for itself the full range of media services. The possibilities for mutually advantageous contractual arrangements between school systems have been largely unexplored. It may be practical, for example, for one or two school systems to handle the purchasing, cataloging, and processing of all media for all schools in the State; for several systems to develop extensive film collections available to all; and for regional curriculum laboratories and professional libraries to be developed. No system with fewer than 40,000 to 50,000 students can economically provide all media services to its schools, but it can cooperate or contract with other systems or agencies for certain essential services.

Below is a list of those media services which each school system should make available to its schools, either directly or by contractual arrangement with another district or agency:

1. Provision of inservice education programs in utilization of media
2. Central purchasing, cataloging, and processing of materials for school media centers
3. Provision of professional library collections and services for teachers
4. Provision of additional materials to schools which are too small to provide adequately for the educational needs of students and teachers
5. Loans of expensive or infrequently used materials
6. Distribution of sample materials which schools may examine for possible local purchase
7. Production of materials such as transparencies, slides, videotapes, audiotapes, prints, etc.
8. Maintenance of media equipment
9. Provision of a central source for consumable media supplies
10. Computer services for acquisition and processing of material for information retrieval
11. Computer assisted instruction
12. Television services which in addition to open circuit instructional television may include closed circuit television (CCTV) within the system and community antennae television (CATV) services where available in the community. It is suggested that 20% of cable channels of any CATV system be reserved for educational purposes. It is essential that the Superintendent of Schools and the Board of Education be involved with other officials and CATV operators before any franchise is awarded.

STAFF

It is essential that every school system, regardless of size, employ at least one full-time professional media generalist who provides leadership for the development of media services for its individual schools and the development of services from the system media center.

The size of the system and the scope of its services will determine the need for additional staff and necessary professional qualifications. Staff employed for the media program in the Central Office and for the individual schools should be qualified media personnel assigned responsibilities for developing, administering, organizing, and maintaining unified media programs which fully support instructional objectives and identified educational needs. Staff should represent the diversity desirable to provide the range of professional, technical, and clerical services to develop, administer, organize, and maintain a unified media program. Media staff should be on the same pay scale, with the same fringe benefits, as other staff with comparable responsibilities, education, and experience. Authority and responsibility should be delegated to the lowest level where decisions can be made effectively and with proper accountability.

Below is a working outline of Central Office staff needs. In systems with fewer than 40,000 to 50,000 students some of the staff and services mentioned below may be available only on a contractual basis from other systems or agencies:

1. **Administration**
   Director of media services
   Assistant director of media services (as necessary)
   Secretary for each
2. **Supervision**
   One professional per 25 schools
   One secretary per two professionals

3. **Film library**
   Head of film library services
   Secretary

   The extent to which this service is provided through closed circuit television will determine the number of additional staff needed. It is suggested that systems which do not provide film service through closed circuit television will need the following additional staff:

   One booking clerk per 25,000 annual circulation

   One film inspector per 30,000 annual circulation

   One film distribution clerk per 20,000 annual circulation

4. **Professional library**

   One media generalist per each 2,000 professional staff members, with one designated as head of the service

   Two aides or clerks per 2,000 professional staff members served

   If additional services such as extensive researching and abstracting are provided, and if the library is open for extended hours, additional staff will be needed.

5. **Media examination center**
   Head of examination center
   Secretary
   Aide

   As service expands, additional staff in specialized subject areas will be needed.

6. **Processing center**
   Manager
   One cataloger per 100,000 items processed annually
   Supervising clerk
   One clerk per 15,000 items processed annually

7. **Media production center** (excluding television)
   Head of center
   Secretary
   One graphic artist per 1,000 teachers served
   One photographer per 2,000 teachers served
   One technician per 1,000 teachers served
   One aide per 1,000 teachers served

8. **Equipment services**
   Head of services
   One equipment evaluation specialist
   One equipment evaluation technician per 50 schools
   One electronic equipment repairman per 25 schools

   (The evaluation function could be placed in the examination center; repair services might be obtained through contract with a commercial agency.)

9. **Media inservice education services**
   One professional per 50 schools
   One workshop aide
   Clerk

10. **Printing services**
    Manager
    Secretary
    Editors as needed
    One operator per item of camera, printing, and binding equipment
    One typesetter per typesetting unit

11. **Television services**
    One professional position is essential for television utilization even though the system does no production.

    Beyond this, the size and type of staff required for the program will be determined by:

    a) the method the system has chosen to utilize television
    b) the extent to which it produces its own programs
    c) the extent to which programs are produced in the local schools
    d) the extent to which television programs are filmed for later use.

Photographers and technicians are needed to assist local schools producing their own programs as well as for system-wide productions.

Extensive system-wide production calls for:

Head of services (Professional)
Script writers
TV teachers
Clerical, technical, and engineering personnel.

The utilization of apprentice technical and production personnel is recommended when it is available. Students enrolled in community college or vocational technical high school courses in television and radio are usually qualified for such positions.

COLLECTIONS OF MATERIALS AND EQUIPMENT

It is the responsibility of the Central Office 1) to develop acceptable standards for the selection of materials and equipment 2) to provide in each school, regardless of size, an initial collection of materials and equipment and 3) to provide a central collection of materials and equipment which augments collections in the individual schools.

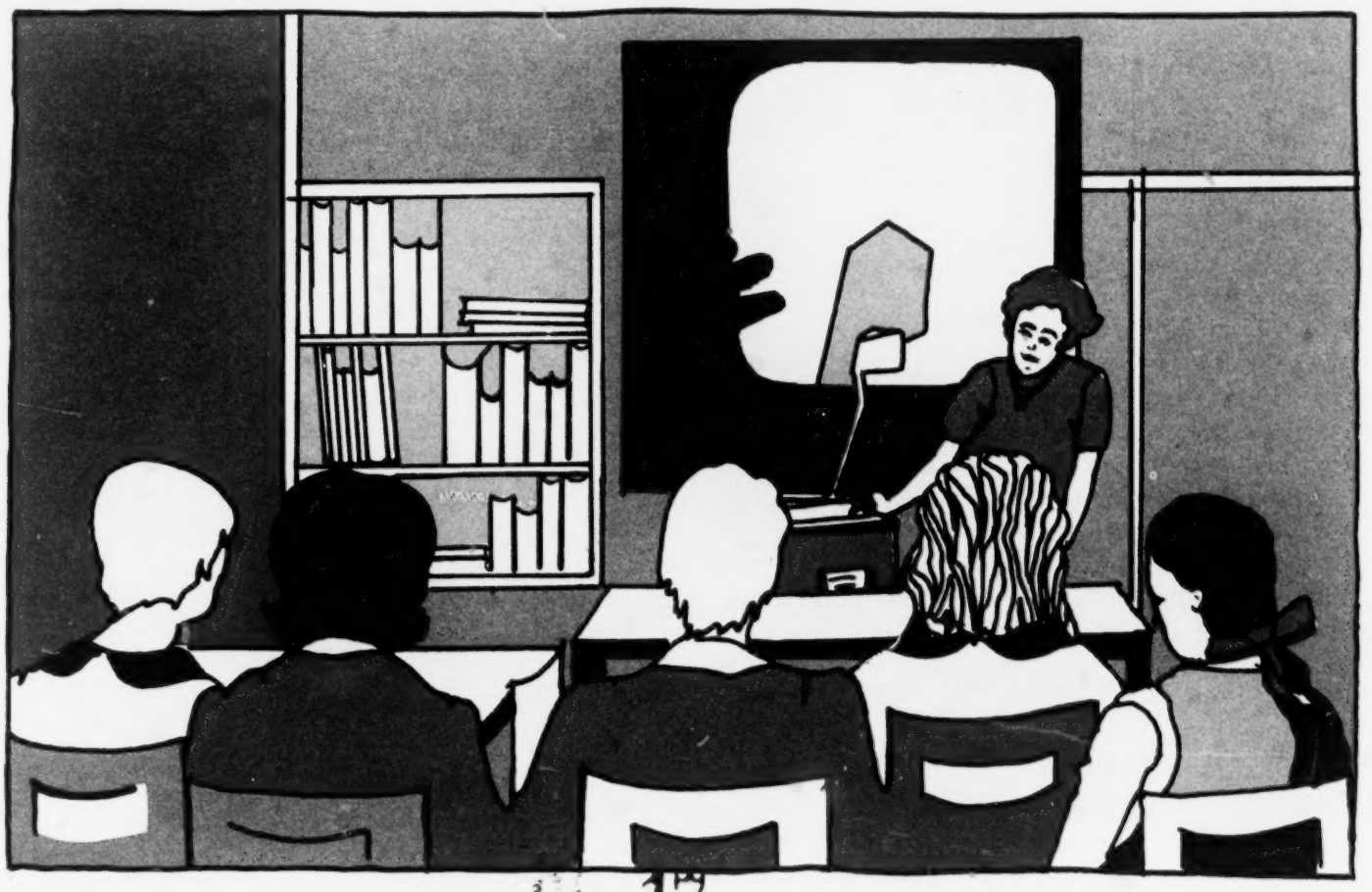
Initial collections in individual schools should be available for use when new schools open and, within legal limits, should be funded from capital. Additional funds must be provided annually for the necessary expansion and maintenance of these collections.

Materials and equipment housed in the school system or regional media center should meet one or more of the following criteria:

1. They are too expensive for individual school purchase.
2. They are infrequently used.
3. They require constant care and upkeep impractical for individual schools to provide.
4. They include materials to support instruction in schools too small to justify complete building level media services.

On the basis of these criteria, the system or regional media center supplies the following materials and equipment for schools and, for maximum service, in quantities indicated:

1. 16 mm motion picture films
   One print per ten students. (This number would be drastically reduced if films were shown on closed circuit telvision.)
2. Professional books and periodicals
   Books: 5 per teacher.
   Periodicals: Current subscriptions to 300 titles, plus back volumes and appropriate indices; ERIC materials.
3. Special materials for handicapped students
   For example, braille and talking books in quantities sufficient to meet curriculum needs of blind and visually handicapped pupils.
4. General materials to serve very small schools
   Collections based on standards to serve an individual school with enrollment equal to that of the combined small schools.
5. Other special materials — adequate for special school system programs; e.g., museum objects, videotape, etc.



FACILITIES

In addition to providing a well designed system-level media center, the Central Office has the responsibility for guiding the development of media centers in its individual schools.

Before any plans are drawn, architects should be provided with specifications which describe the philosophy of the school, the educational program, and the role of the media center. Once the planning stage is initiated, the architect should design a functional, inviting center whose spatial relationships enhance the unified media approach to learning. The design should allow for expansion and adaptation to changing educational needs. It is also of primary importance that the center be conveniently located for all areas of the school and provided with an outside entrance.

Planning of facilities for the school system or regional media center will depend on the services provided. To provide a full range of services, however, the following areas should be included:

1. Administrative offices
2. Areas for reading, viewing, and listening
3. Areas to house collections, including a film library, professional library, and examination center
4. Areas for processing materials and equipment
5. Areas for production, including video and audio tape studies; areas for graphic arts, photography, and overhead transparency "assembly line"; and areas for maintenance and repair of equipment
6. Areas for inservice workshop sessions.

COSTS

The program described in this *Bulletin* envisions the provision and effective use of all type of instructional materials ranging from textbooks and print and nonprint materials for the media program to supplies provided for production of materials. The extent to which funds are made available for instructional materials and the method of allocation depends upon policies established by local boards of education, the type of educational programs provided in the individual schools, and the quality and quantity of services provided from the Central Office.

Annual allocations which will provide for maintenance and expansion of collections of materials and equipment should be made to the individual school. Changes in structure of school population and new instructional programs create a need for additional funds beyond those normally provided. When allocations are made on a per pupil basis, it should be remembered that small schools require a larger per pupil amount if equal instructional materials are to be made available.

It is recommended that 7 percent of the total current instructional budget be allocated for instructional supplies and materials, including textbooks, library books, AV equipment, and consumable supplies. It is further recommended that this percent be allocated as follows:

25% — textbooks
25% — media items; i.e., books, films, recordings, etc.
50% — other, including consumable supplies and AV equipment

On the basis of the 1969-70 disbursement for instruction in Maryland public schools, the per pupil cost of this percentage would have been:

$10.00 per pupil for textbooks
10.00 per pupil for media items
20.00 per pupil for other

The cost of cataloging and processing media items can be taken from the per pupil allotment, but consumable supplies for production of materials and maintenance of the collection should come from the "other" category. Allocations to schools for audiovisual equipment is dependent upon the use made of the equipment, the current inventory, and the quality of the available equipment.

1 Maryland State Department of Education. Division of Research, Evaluation, and Information Systems. *Selected Financial Data Maryland Public Schools*, 1969-70, Part II. REIS 075 - 19 6/71, Table 1.

THE MEDIA PROGRAM in the Individual School

Media programs at State Department of Education and local school system levels furnish foundation support for the program in the individual school. The primary purpose of the program in the school is to assist staff and students in getting the information they need, and the ultimate test of its effectiveness is the degree of satisfaction staff and students find in meeting their informational needs. There is, however, another dimension which is the extent they are made aware of their unmet needs — of the potential of the media program.

SERVICES

It has been traditional to describe services in terms of staff performance; the approach taken here is an effort to describe services in terms of client needs and objectives. It is the responsibility of the building principal and his media staff to be aware of what their clients need and to provide services which meet those needs. The information needs of students and teachers are relatively easy to determine: they want to be able to get any material when they want it, to be able to use it in a manner that is satisfactory to them, to have a degree of independence in its selection and use, and to have their questions answered.

To assist them in getting any material they need when they want it, the school provides within its four walls a collection of material whose variety and scope are limited only by the program of the school and the abilities, interests, curiosity, and imagination of the clients. These materials can range from aquariums to microfilms, from jigsaw puzzles to dial access programs. They can include recordings, books, film strips, periodicals, models, documents, pamphlets, photographs, reproductions, pictorial and graphic works, musical scores, maps, charts, globes, games, slides, transparencies, films, video tapes — material in any available format.

The school assists the user further in his search for materials by borrowing from other agencies: the school system, other schools within the system, and the public library. Traditionally, media staff members have been lethargic in exploring sources outside their own school. The practice of interlibrary borrowing and lending, with materials made available to the user through his school media center, would facilitate his quest for what he needs. Other extensions of the collection include the provision of the public library's book catalog in the school center and cooperative selection, acquisition, and use of periodicals on microfilm. Provision of information retrieval systems and the utilization of television are still other means of providing students and staff with materials and information they want.

Assistance to the clients in being able to use materials in a manner that is satisfactory to them entails establishment of policies which are client rather than institution oriented. Three factors which affect the ability of staff and students to use materials as they need them are 1) circulation rules, 2) scheduling, and 3) hours of service.

Both teachers and students want materials to use with groups and individually in the center, in the classroom, and at home. Circulation policies which are established should reflect these needs. Teachers and students should be able to borrow multi-media collections of materials and concomitant equipment to be used as needed in the classroom, for committee assignments, and for individual reports. It is recommended that schools lend collections of materials and equipment to classroom teachers and to students for the duration of their projects; that the personal loan period, except for material which necessarily must be placed on reserve, be lengthened to one month; that audiovisual equipment be lent for home use; and that fines on overdue materials be abolished.

A prime factor in user frustration is inflexible scheduling. The propensity of some teachers to think that no learning takes place unless they are talking, rigid period by period scheduling of both elementary and secondary school students, and a media staff unwilling to cope with the exigencies of each day's events have resulted in regimented schedules which give the user, be he a teacher or student, no leeway in when or how he may avail himself of the media services he needs to meet his objectives. It is recommended that students be encouraged to visit the media

center freely, coming either from study hall or the classroom to pursue an assignment or an individual interest, to do committee work, or to work on small group assignments. Class visits to the center should be planned by the teacher and media staff and arranged as often as necessary.

Hours of service can be as inhibiting a factor to client satisfaction as scheduling. It is recommended that the center be open during the whole school day and before and after school. Expanded instructional programs may necessitate extending the media program to include a summer schedule, Saturdays, and evening hours. When hours are extended, additional professional and supportive staff must be provided, preferably working with a staggered rather than separate staff; however, their work time should not exceed that of other school staff with comparable responsibilities.

Factors which affect the design and location of facilities include the clients' needs for space in which to use their materials. They want to use materials in large and small groups and alone, to study quietly, to confer with others, and to prepare materials.

One of the identified user needs is for a degree of independence in the selection and use of materials needed to meet his objectives. Designing programs to meet these needs involves instruction, guidance, and organization of materials. Students who are to use material independently need to know how to use the catalog, indexes and various reference tools, and techniques for searching. Staff and students alike need instruction and guidance in order to understand how effectively non-book material can meet their information needs. They need to develop techniques for selecting the specific materials best suited for the purpose. They need skills in listening and viewing as well as in speaking, reading, and writing. They must be able to operate projectors and recorders efficiently and comfortably. It is the responsibility of the media staff to provide the instruction and guidance which offer opportunities for students and staff to become as independent users of materials as they wish to be or as is consistent with their age and ability. The users should be able to participate in the selection of materials which are added to the collection. Methods for insuring this include frequent conferences with faculty, a degree of responsibility for selection in specific areas assigned to department heads or grade level chairmen, a selection advisory committee composed of staff and students, and "suggestion boxes" in which anyone in the school might place a recommendation for material he would like to have added.

The degree of independent use of materials is governed largely by their organization and accessibility. It is recommended that the Dewey Decimal Classification should be used for both print and nonprint materials and that catalog cards for these materials should be interfiled. Some centers have found it helpful to divide the the catalog with author and title cards filed in one alphabet and subject cards filed in another. When print and nonprint materials can be on open shelves with all material on one subject in the same area, accessibility is simplified.

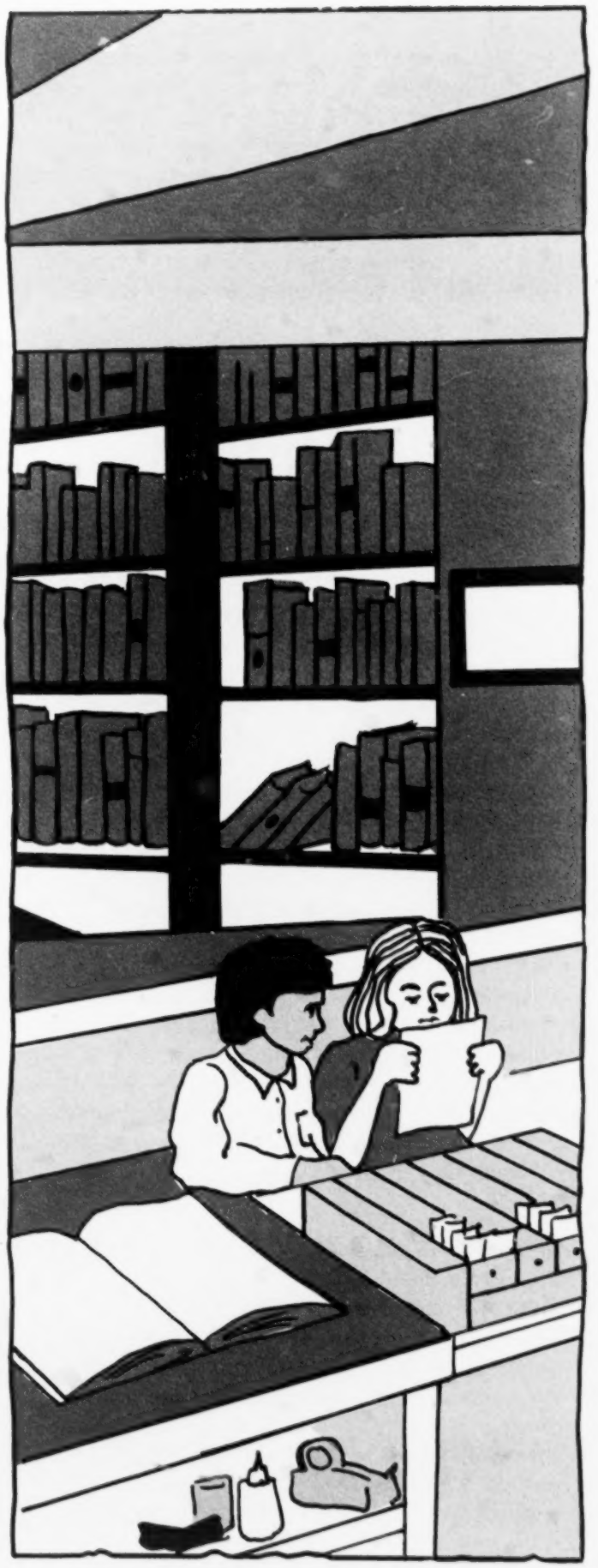
Since the greatest need of the media staff is for time to spend in the selection of materials and equipment, in instruction and guidance, and in participation in curriculum development, it is recommended that all materials except those locally produced come to the center completely cataloged and processed. This service may be performed at the central office, by contract with another system, or through a commercial firm.

Independent users of the center also need to have shelves and subject areas clearly labeled, to be able to find self-explanatory floor plans, and to have established rules and regulations for the use of materials and equipment available at all times.

The extent to which students have their questions answered varies from school to school. In some schools the media staff feel their only responsibility is to teach the student how to find material for himself, in others only simple questions are answered directly while few if any provide any extensive searching. The philosophy of the school and the size of the media staff are factors which govern the degree to which this service is provided. Emphasis on independent learning rather than group teaching points to the learner's need for information provided directly. A media staff with differentiated competencies, inter-library borrowing policies which bring the needed material to the student at his home school, and availability of copying machines increase the ability of the school to provide answers to questions.

The identified needs of staff and students for materials, equipment, and services from the media center are limited by their knowledge of what they can get. Profitable services could be offered which would contribute to meeting user needs and increase their awareness of the potential of the center, including the preparation of multi-media bibliographies for faculty and students, regular conferences with staff, teaching the use of specific tools in relation to need, notification to staff and students of new materials in the center, and accepting reserve requests from students.

The ingredients which make possible the provision of any or all of these services are the collection of materials, the staff, and the facilities.



STAFF

Since the term "educational media" includes a broad range of instructional materials and communications technology, a media staff must include personnel with an equally broad range of preparations and skills. Both professional and supportive personnel are essential. A unified program of media services requires that a professional media generalist be placed in charge and have responsibility for developing a comprehensive program. When two or more persons are employed at the same level of operations, the one in charge has responsibility for the administration and management of the program. He needs competencies in both the library and audiovisual areas as well as in the fields of learning theory, curriculum, instruction, communication, administration, and research. This person may be either a librarian with additional preparation in audiovisual areas or an audiovisual specialist with additional preparation in library areas. To manage successfully the media program of a school, he must exhibit leadership qualities, good human relations skills, and administrative ability. Materials must be so organized that they are easily accessible, records must be kept which provide necessary information, budgets have to be prepared, and reports made. It is also the responsibility of the media generalist in charge of the program to develop in staff members the necessary knowledge, skill, and competence to carry out their specific job responsibilities to effect a unified program of media services for students and faculty. In schools which formerly had separate library and audiovisual programs but are now implementing a unified program, the head of the center should be the most qualified person in terms of competencies in the combined fields.

It is desirable that media staff members be in the vanguard in thinking of educational programs and practices in order that they may encourage as well as participate in innovative instructional experiences. They are in a unique position to encourage teachers to use a multimedia approach to learning and teaching and to provide opportunities for students to work, to learn, and to be creative in fashions that are satisfactory to them. It is the responsibility of the media staff to assume leadership in planning, developing, and evaluating a program which meets the needs of the staff and students. All media staff should be multi-media minded. Extensive knowledge of materials in different formats is a requisite for intelligent, timely selection of materials, for providing information needed by clients, and for serving as resource personnel for faculty and students. Ability to operate equipment easily is also essential in providing guidance for individuals and groups in the selection, use, and production of materials. Media staff members need to have knowledge and understanding of learning patterns, of the psychology of the age group served by the school, and to be familiar with the program of the school. In addition, they need to have instructional skills and the ability to communicate with school staff and students in order to be able to participate in curriculum planning and team teaching, to teach individuals as well as groups of students, to provide inservice experiences for both faculty and students, and to be skilled in the production of materials. As the enrollment grows, services expand, and additional staff is employed, every effort should be made to identify people with media competencies that will complement one another in fields of preparation or subject specialization.

Supportive Staff: Technical and Clerical Aides

The supportive staff of a media center consists of technical and clerical aides who work under the direction of a media generalist or specialist. These aides perform many of the tasks related to the ordering, receipt, maintenance, inventorying, production, distribution, and utilization of materials and equipment. In schools where the supportive staff consists of only one person, the supportive services will need to be combined.

Supportive personnel should have a general knowledge of media program functions as well as those skills necessary for the performance of their specific duties. Preparation for the position of technical or clerical aide can be acquired either by specialized training courses or through on-the-job experience.

Those responsibilities assumed by *clerical aides* may include:

1. Preparing, processing, and receiving orders and materials
2. Maintaining records, inventories, and bookkeeping accounts
3. Typing correspondence, reports, and bibliographies
4. Scheduling materials and equipment for use in the media center and throughout the school
5. Locating and retrieving materials and equipment for students and teachers
6. Assisting in the production of materials (transparencies, tapes, slides, etc.)
7. Assisting in the operation and minor repair of equipment and the maintenance and repair of materials.

Typical duties of *technical aides* include:

1. Operating, maintaining, inspecting, and distributing instructional equipment
2. Instructing students and teachers in the use of instructional equipment
3. Routine maintenance of special equipment such as dial access audio program retrieval systems
4. Maintenance of inventories, schedules, and utilization records for instructional equipment in the media center and throughout the school
5. Making minor repairs and adjustments in instructional equipment, such as replacing fuses, lenses, or sprockets
6. Helping with the production of materials such as tapes, slides, transparencies, or 8 mm films.

As a media program expands, there may be a need for supportive personnel with specialized preparation in such areas as information and materials processing, graphic design and production, reprographic techniques and displays, photography and other media production methods, television (videotaping) broadcasting, electronics, and computerized services.

Staff Size

The size and diversity of media staff are governed by a number of variables: size of school, grade

range, scope of the instructional program, school organization, number of students with special needs, the range and quality of services provided from the system level, and public support.

But it is important to remember that regardless of the variables which affect his school, every student is entitled to maximum educational opportunities. To assure this, the basic principles below governing staff size must be kept in mind:

1. **Each school, regardless of size, should assign one person the responsibility for the media program.** In small schools this may be a part-time responsibility, which consists mainly of coordinating activities with the system's office and outside agencies.
   In schools with an enrollment of 250 students or more, there should be at least one full-time media person assigned this responsibility. Smaller schools in this category may assign the responsibility to a qualified non-professional who works under the direction of a full-time professional employed at the system level.
2. **When more than one person is employed in a media center, one should always be designated as the coordinator.**
3. **As media services expand, additional professional staff with specialized competencies will be needed:** e.g., subject specialists, retrieval specialists, graphic artists.
4. **Supportive staff are essential to the efficient functioning of the professional staff.** In building a school's media staff, a clerical aide is recommended for the first supporting staff position and a technical aide for the second supporting staff position. The nature of the media program will then determine whether subsequent positions should be clerical or technical aides.
5. **If hours of service in the media center are extended beyond the regular school day, additional staff or staggered work schedules will be necessary.**

Suggested here are staffing patterns for schools offering a full range of educational opportunities for all pupils.

Twelve month employment is recommended for both professional and supportive staff in sufficient numbers to develop, implement, and operate media center programs throughout the year.

Enrollment	Professional Staff	Supportive Staff	
	Generalists and Specialists	Clerical Aides	Technical Aides
Under 250	1*	1	
250-499	1	1	1
500-749	1	2	1
750-999	2	2	1
1000-1399	2	2	2
1400-1849	3	3	2
1850-2499	4	4	3
2500-	5	4	3

* Professional assistance may be provided from system level.

COLLECTIONS

Initial Collections

The term "initial collection" refers to the basic collection of materials which every school should have in order to operate effectively. It should be understood that this "initial collection" represents a minimum upon which to build a more adequate collection later on. Below are guidelines to assist in establishing this basic collection:

1. Each school with an enrollment of 250 or more pupils should have an initial collection of print and nonprint materials fully cataloged and processed to serve as a base for an adequate collection.
2. Schools with enrollments of fewer than 250 pupils should have easy access to resources adequate to their needs. These resources should be at least as large as the recommended initial collections for schools with enrollments over 250. As many of these resources as possible should be available permanently in the school building. The additional resources needed must be made available from other sources.
3. The size of the initial collection should be dependent upon the enrollment, the range of grades, and the grade levels of the school. The larger the span of grades, the more varied the subjects and levels of materials must be. With higher grade levels, more depth of coverage is required.
4. The initial collection should include a variety of both print and nonprint materials.
5. An analysis of the special needs of the school population (as in special education and vocational technical schools) should determine the size and quality of the initial collection.
6. The acquisition of an initial collection in a new school should begin at the time the building contract is let. This plan will provide time for sound selection procedures, cataloging and processing of materials, and any other procedures necessary to have the materials ready for use on the opening day of school.
7. Funds for initial collections should be included in capital budgets if possible. Otherwise funds especially designated for equipping new buildings should be provided. Regular per pupil allotments for materials are not sufficient for initial collections for new schools.
8. Because of the amount of duplication needed, schools with decentralized resource centers require larger initial collections than schools with only one centralized media center.

Recommended Size of Collections

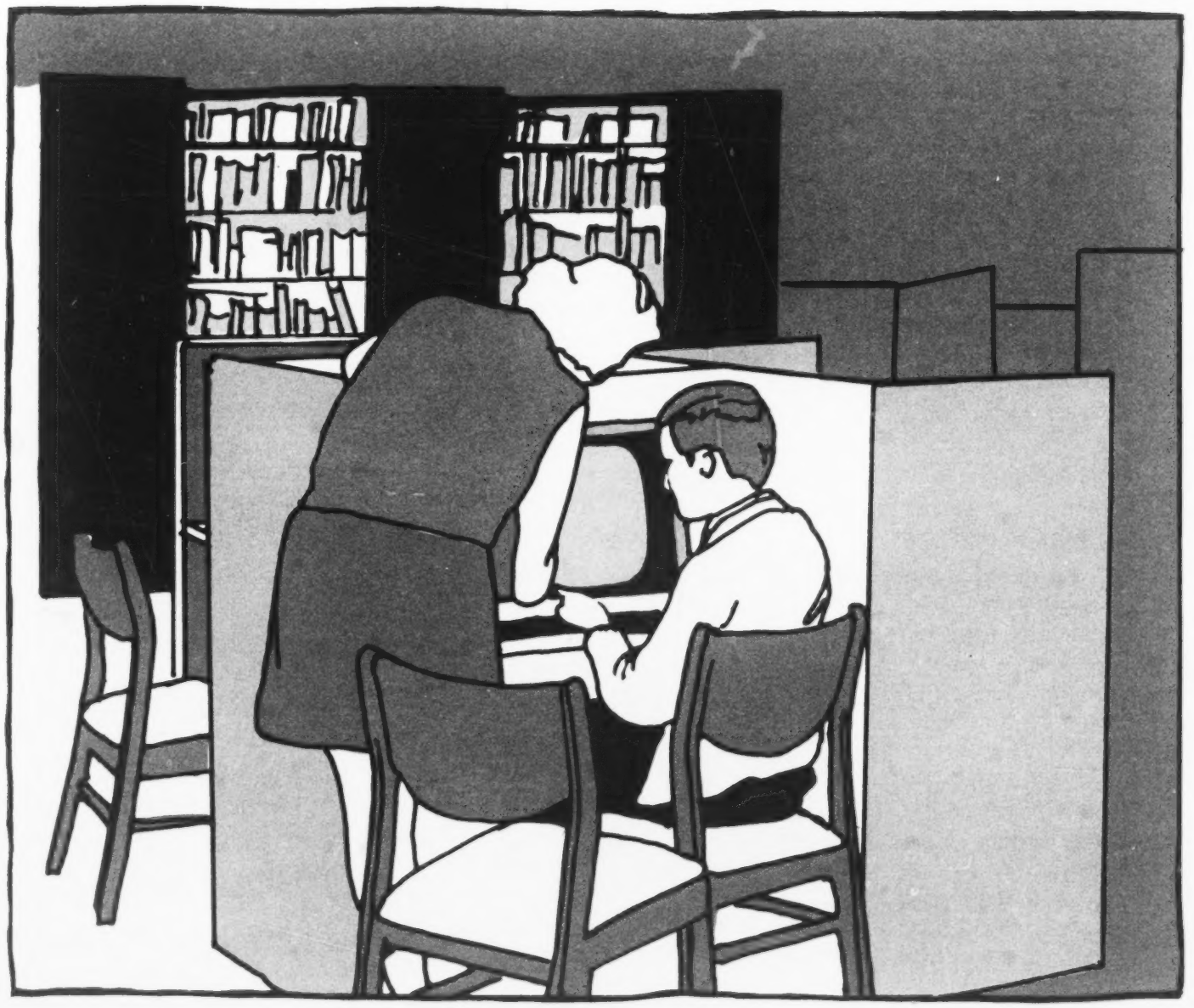
Since the initial collection should include both print and nonprint materials, recommended size is based on "items." An item may be a book, either hard cover or paper back, a film, a filmstrip, tape, record, globe, slide, kit, completed transparency (not a master), or a periodical subscription. These recommendations are intended to give a school as much leeway as needed in building the type of collection most suitable for its individual needs.

1. Elementary Schools (Grades K-6)
   A multimedia collection of 12,000 items is recommended. In order to provide for duplication of titles and/or broadening of subject coverage, schools with enrollments of more than 600 pupils need to provide a total initial collection of at least 20 items per pupil.
2. Junior High Schools (Grades 7-9)
   A multimedia collection of 15,000 items is recommended. In order to provide for duplication of titles and/or a broadening of subject coverage, schools with enrollments of more than 600 pupils need to provide a total initial collection of at least 25 items per pupil.
3. Senior High Schools (Grade 10-12)
   A multimedia collection of 18,000 items is recommended. In order to provide for duplication of titles and/or a broadening of subject coverage, schools with enrollments of more than 600 pupils need to provide a total initial collection of at least 30 items per pupil.

Developing Collections

Each school should continue to build its collection in a systematic manner based on a study of user needs and program needs. Growth in the size of a collection should parallel the growth of the school's program and also act as a stimulus to the broadening and deepening of that program. It is recommended that:

1. Collections of print and nonprint materials should be developed according to the needs of the school for the various types of materials rather than according to any arbitrary balance based on a percentage of the collection.
2. Each school system and each school should evaluate its educational program, its present collection, and its future needs. On the basis of this evaluation, a planned program of development should be undertaken with specific goals to be reached during each of several phases.
3. All schools should have supplementary funds for adjusting collections to curriculum changes, changes in teaching techniques, and



changes in enrollment. These funds should be made available well in advance of the implementation of any change so that necessary materials will be on hand when they are required.

4. Allotments for media programs should be adequate for the acquisition of all types of materials and supplies. Each school should have the financial flexibility to acquire the most desirable proportion of print and nonprint materials or supplies.
5. Funds for materials from all sources should be combined, and all requests for materials should be channeled through the media center in order to eliminate undesired duplication of purchases and promote greater economy. The same policy should be followed for equipment.

Professional Collections

Professional materials are often available through system level collections; college, university, and public libraries; and curriculum centers. The individual school, however, needs some professional materials of its own which are easily available. Below are guidelines for developing such a collection:

1. A collection of current, carefully chosen professional materials should be available in each school, supplemented by access to a full collection at the system or multi-system level.
2. The collection should include professional periodicals of a general nature and selected titles in specific subject areas.
3. In acquiring professional periodicals, the the school's media center should act as the clearing house, regardless of the source of funds (library, department, principal's, etc.). This practice will eliminate unnecessary duplication of titles, insure that a sound collection is developed, and facilitate circulation.
4. One copy of all system curriculum guides and other publications appropriate to the program of the school should be available in the media center of each school.
5. Indexes to professional literature should be available in every school except the smallest.
6. Individual schools should not attempt to provide materials for research, textbooks for education courses, or materials of an historical nature.

Record players and tape recorders:

Earphones should be available for individual listening

Record player
- 5 in media center
- 1 for each teaching station, grades K-6
- 1 per 5 teaching stations, grades 7-12

Audiotape recorder, reel to reel
- 1 in media center
- 1 per 20 teaching stations

Cassette tape recorder, classroom size
- 1 in media center
- 1 per 3 teaching stations, grades K-6
- 1 per 10 teaching stations, grades 7-12

Cassette tape recorder, portable
- 6 in media center
- 3 per teaching station, grades K-6
- 1 for each teaching station, grades 7-12

Cassette tape player, portable
- 20 in media center
- 3 per teaching station, grades K-6
- 1 per each teaching station, grades 7-12

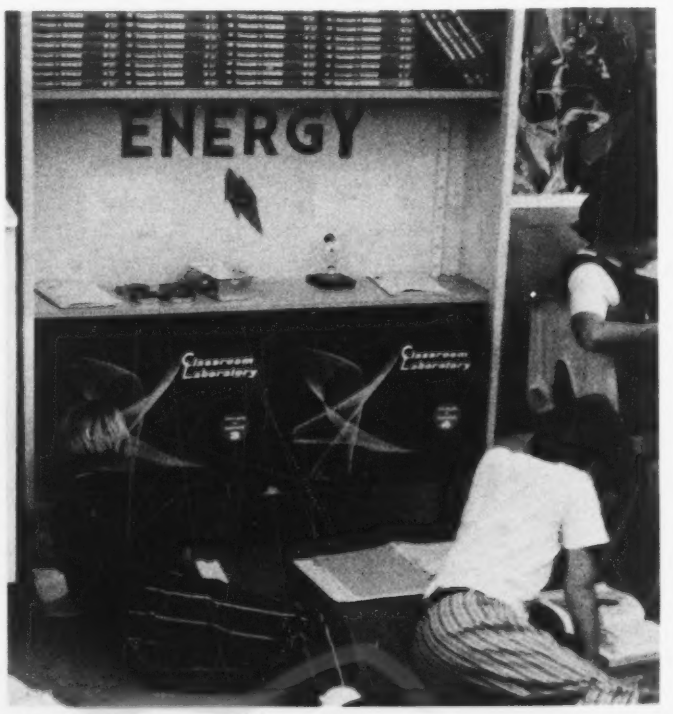
Listening stations equipped with 6-10 sets of earphones
- 2 in media center
- 1 for each teaching station, grades K-6
- 1 per 20 teaching stations, grades 7-12

Projection cart
- 1 for each 16mm projector and overhead projector

Projection screen, wall mounted
- 1 in media center, 1 for each teaching station, and 1 in multi-purpose room

Projection screen, portable
- 1 in media center

Copying machine
- 1 in media center
- 1 per 20 teaching stations



Duplicating machine
1 in media center
1 per 20 teaching stations
Microreader printer
2 in media center

Recommended Quantities of Equipment

These recommended quantities by no means represent a limit to the amount of equipment that may be required for an individual media program but simply a basis from which to work. In certain types of innovative programs equipment needs may exceed the listed quantities.

One word of warning: it is imperative that current trends in technology be taken into consideration in order to avoid the purchase of equipment which is rapidly becoming obsolete in use or design.

Projectors

16mm sound
2 in media center
1 per 5 teaching stations
8mm
5 in media center
1 per 4 teaching stations
2 x 2 slide
2 in media center
1 per 10 teaching stations
Filmstrip or combination filmstrip-slide
1 in media center
1 per 3 teaching stations
10 x 10 overhead
1 in media center
1 per each teaching station

Viewers

Sound filmstrip cassette
1 in media center
1 per 6 teaching stations
Filmstrip
20 in media center
1 per each teaching station
2 x 2 slide
2 in media center
1 per 5 teaching stations
Microreader
1 per 20 teaching stations
Opaque projector
1 for each school building
Typewriters for student use
3 in media center
Closed circuit television for each building: complete distribution system capable of feeding off-air telecasts, live signals and video tape recordings in color or black and white.

For media center, each teaching station and multi-purpose room
Video tape recorder system, including camera and monitor, portable
1 per 24 teaching stations
Video tape recorder, play back unit only, portable
1 per 24 teaching stations
Master antenna for each building capable of receiving UHF and VHF signals
TV receiver
1 in media center, 1 for each teaching station, and 1 in multi-purpose room
Radio receiver
AM-FM set for media center, plus central distribution system
Lecternette
1 per school building

Local Production Equipment Per Building

Dry mount press and tacking iron
Paper cutters
Thermo and Diazo transparency production equipment
Super 8mm camera
Rapid process camera
Equipment for darkroom
Spirit duplicator
Primary typewriter
Copy camera and stand
Light box
35mm still camera
Film rewind
Film splicer (8mm and 16mm)
Tape splicer
Slide reproducer
Mechanical lettering devices

FACILITIES

The space requirements for school media centers depend upon the organizational pattern of the instructional program, the school's commitment to the media services program, and the funds available for either new school construction or remodeling. The media center should be designed as an action center where students and teachers go not only for the materials of learning but also for the experiences of learning. It is also important that information and services be able to flow easily between the media center and other media use areas such as classrooms, other resource areas, laboratories, and shops.

A complete media service area should include 1) space for reading, listening, and viewing; 2) areas for conferences; 3) areas for individual study and larger group activities; 4) space for a professional library; 5) offices for work related to the management of the center and production of audiovisual material; 6) areas for typing and tape recording; and 7) space for storage of books, periodicals, and audiovisual materials. It is essential, however, that these areas in a media facility be flexibly designed in order to accommodate changes which might occur in other teaching-learning areas and in order to be adaptable to new technological developments. The extent to which media services are centralized will be determined by the instructional program and the school's size. For any media services facility, however, it is recommended that:

1. The total media services area be computed at no less than 7-10 square feet per student, based on capacity enrollment.
2. The total media services area accommodate approximately 25% of the enrollment capacity of the school.
3. Not more than 100 seats be provided in any one area.

Design Specifications

All media centers, new or remodeled, should be easy to supervise and include the following:

1. Aesthetic design, decoration, and furnishings
2. Acoustical floor covering
3. Acoustical ceilings
4. Adequate electrical and communications outlets
5. Adequate light control
6. Adequate ventilation and temperature controls
7. Safety precautions in design and furnishings

Furnishings

Below are some of the furnishings essential to the adequate functioning of a media facility:

1. A charging desk of proper size
2. Tables, chairs, study desks, and wet carrels
3. Adjustable reference shelving (figured at 18 books per shelf); standard shelving (figured at 30 books per shelf); and picture book shelving with dividers (for elementary schools and figured at 60 books per shelf); the total amount of shelving to hold 10 books per student, based on capacity enrollment
4. Differentiated shelving and space for files to house various types of audiovisual materials: filmstrips of several types; reel-to-reel, Cassette, and videotapes; slides; and disc recordings. This shelving and space should be sufficient for at least 10 audiovisual items per student, based on capacity enrollment
5. Magazine display and storage space for back issues
6. Legal size filing cabinets, jumbo file cabinets, and blueprint type file cabinet for transparencies, printed pamphlets, flat pictures, etc.
7. An expandable card catalog with drawers to hold cards for entire collection (figured at 1,000 cards per drawer)
8. Dictionary and atlas stands
9. Large wheel swivel book trucks
10. A sink with running water

Recommended Space Needs for SCHOOL MEDIA CENTERS

BASED ON 1000 ENROLLMENT

Functions	Needs	Area in Square Feet
1. To provide for display and circulation of materials and equipment	Space for circulation desk, catalogs, indexes, displays, exhibits, and copying equipment.	500
2. To provide for individual reading, listening, viewing, browsing, and study	Space for tables and chairs suitable for media services. Thirty percent to forty percent of seating capacity of area should be individual carrels equipped with power and capability for electronic response systems and television outlets; area should be ducted for power and coaxial distributions. It is suggested that carrels be 36" wide and 24" deep and equipped with shelving.	4,500
3. To provide for small group activities such as committee work, listening, viewing, and individual typing	Conference rooms 10' x 10' each with movable walls; area should be acoustically treated with electrical and television outlets, and with a wall screen.	600
4. To provide for large group activities and instruction	The equivalent of a classroom area, equipped for instructional purposes.	750
5. To provide for administrative activities	Office space for professional staff members and media planning area.	300
6. To provide for production and processing of materials	Space for media production, mending, etc. with sink, electrical outlets, counter work space, and storage. Space should include faculty media preparation area.	600
	Light-proof dark room should be equipped with light locks and located adjacent to the work space.	100
7. To provide for storage of equipment materials and supplies	Storage space equipped with temperature and humidity controls.	120
	Stacks for incoming print and non-print materials.	200
	Space for back issues of periodicals and microfilm, maps, globes, realia, etc.	300
	Space for housing and distribution of audiovisual equipment.	300
8. To provide for video and audio tape recording		600
	TOTAL	8,870

Schools which produce their own television and radio programs and have a computerized learning laboratory will also need:

A television studio and control room 40′ x 40′ which is soundproof with ceiling 15′ high and doors 14′ x 12′

Storage space for television properties, visuals, etc. — 800 square feet

Office with work space placed back-to-back with television studio — 1200 square feet

Audio studio and control space, 12′ x 12′, which may be near the television studio

Computerized learning laboratory — 900 square feet.